## Cardiac Arrest: Ventricular Fibrillation/ Pulseless Ventricular Tachycardia

### **History**

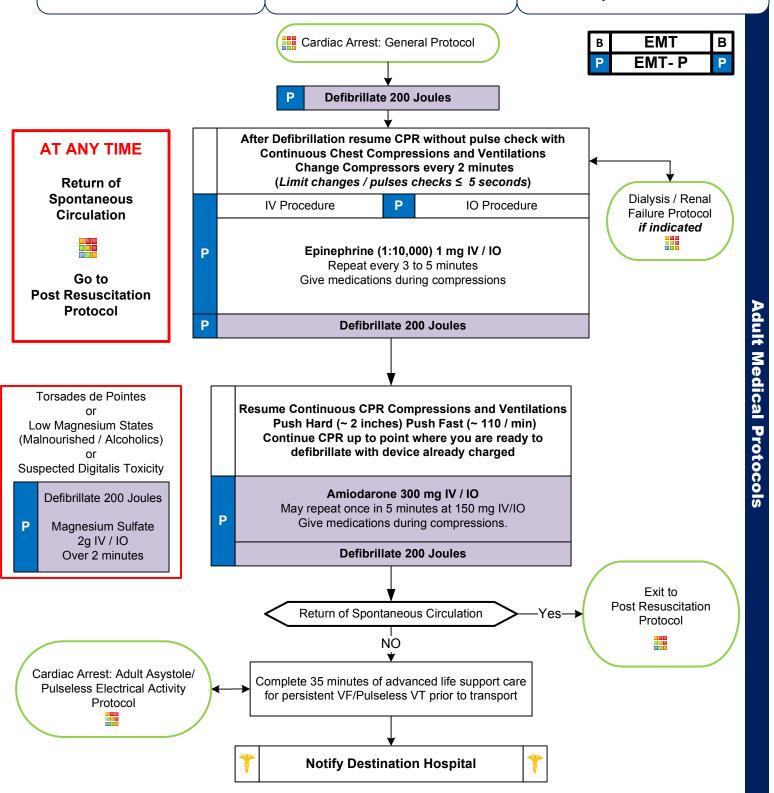
- Estimated down time
- Past Medical History
- Medications
- Events leading to arrest
- Renal failure / Dialysis
- DNR

### Signs and Symptoms

- Unresponsive, apneic, pulseless
- Ventricular fibrillation or ventricular tachycardia on EKG

### **Differential**

- Asystole
- Artifact / Device Failure
- Cardiac
- Endocrine / Medicine
- Drugs
- Pulmonary



# Adult Medical Protocols

# Pearls

 Effective CPR and prompt defibrillation are the keys to successful resuscitation; therefore, primary resuscitative efforts should be directed at high quality and continuous compressions with limited interruptions and early defibrillation when indicated.

Cardiac Arrest: Ventricular Fibrillation/ Pulseless Ventricular Tachycardia

- DO NOT HYPERVENTILATE! Ventilations are accomplished utilizing an adult BVM with just enough compression to achieve chest rise. Ventilate at 6 breaths per minute (once every 10 seconds) with continuous, uninterrupted compressions.
- Non-Hypoxic Origin Cardiac Arrest is typically an arrest suspected of being primarily cardiac in origin, without concern for low oxygen reserves pre-arrest.
  Hypoxic Origin Cardiac Arrest Examples: Primary respiratory arrest, CHF, COPD, Smoke Inhalation, Drowning, Hanging, etc.
- EMS Witnessed, Non-Hypoxic Cardiac Arrest Patients with Shockable Rhythm <u>ONLY</u>: Delay ventilations in preference to passive oxygenation for the first 6 minutes of continuous cardiac compression.
- If functioning appropriately, the preference is to leave the i-gel in place to limit interruptions in chest compressions. If intubation is considered, do not interrupt chest compressions to place the endotracheal tube. Frequently reassess airway placement and EtCO2, especially after every move, and at transfer of care.
- Refer to Dialysis / Renal Failure protocol caveats when faced with a dialysis / renal failure patient experiencing cardiac arrest, ie. Use of Calcium and Sodium Bicarbonate.
- Sodium Bicarbonate, while no longer recommended as a standard cardiac arrest medication, may be consider in the dialysis / renal patient, known hyperkalemia or suspected overdose at 50 mEq IV / IO.
- Return of spontaneous circulation: Heart rate should be > 60 when initiating anti-arrhythmic infusions.
- Patients in persistent VF/Pulseless VT who are transported must be routed to a STEMI Receiving Center!